A Snapshot of Cervical Cancer

Incidence and Mortality Rate Trends

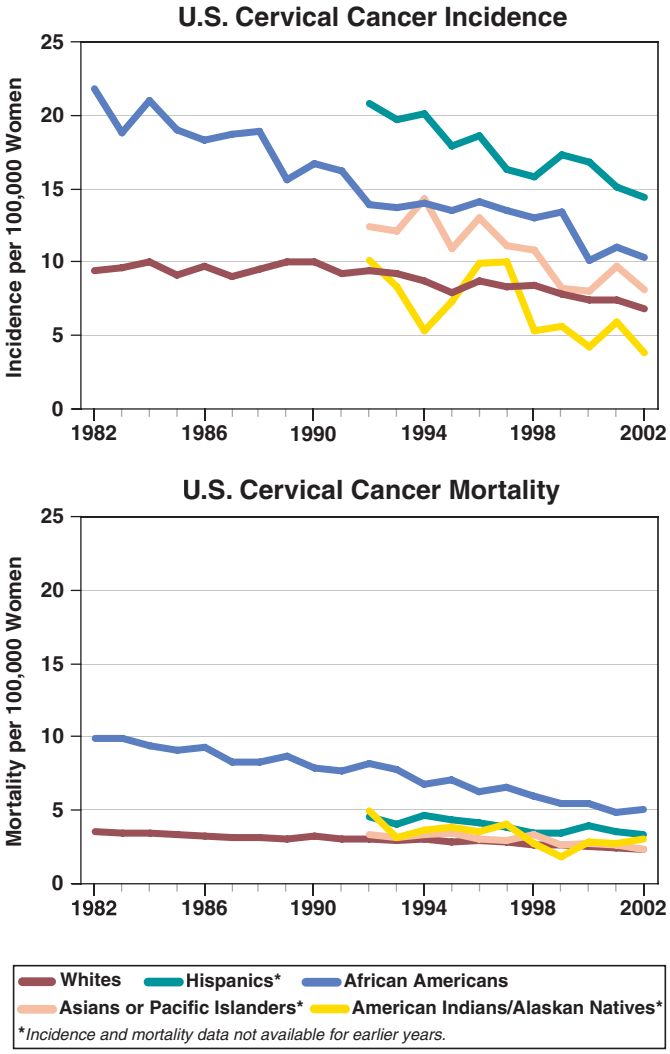
While cervical cancer incidence and mortality rates have declined approximately 50 percent over the past three decades, the disease remains a serious health threat among women. Recent trends show that incidence rates for Hispanic women are higher than those for non-Hispanic women. Although the mortality rate for African American women has declined more rapidly than the rate for White women, the African American mortality rate continues to be more than double that of Whites.

Cervical cancer is preventable and curable if detected early. An important strategy to reduce the risk of cervical cancer is screening through the use of the Papanicolaou (Pap) test. In recent years, researchers have identified human papillomavirus (HPV), which is transmitted through sexual contact, as the main cause of cervical cancer.

It is estimated that approximately $1.7 billion* is spent in the United States each year on treatment of cervical cancer.

*In 2004 dollars, as reported in Brown ML, Riley GF, Schussler N, and Etzioni RD. Estimating health care costs related to cancer treatment from SEER-Medicare data. *Medical Care* 2002 Aug; 40 (8 Suppl): IV-104-17

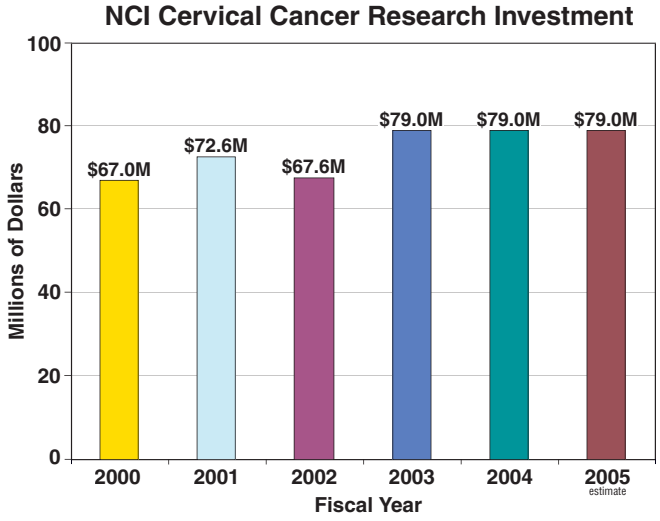
Source for incidence and mortality data: Surveillance, Epidemiology, and End Results (SEER) Program and the National Center for Health Statistics. Additional statistics and charts are available at: http://seer.cancer.gov/



Trends in NCI Funding for Cervical Cancer Research

The National Cancer Institute's (NCI's) investment in cervical cancer research has increased from $67.0 million in fiscal year 2000 to an estimated $79.0 million in fiscal year 2005.

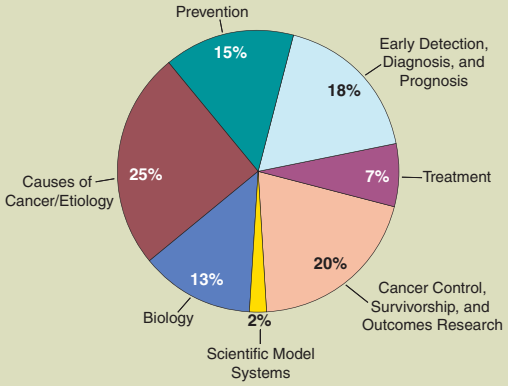
Source: NCI Financial Management Branch
http://www3.cancer.gov/admin/fmb



Examples of NCI Research Initiatives Relevant to Cervical Cancer

- Two gynecologic cancer-specific **Specialized Programs of Research Excellence (SPOREs)** are moving results from the laboratory to the clinical setting. http://spores.nci.nih.gov/current/gyn/gyn.html
- The **ALTS (ASCUS/LSIL Triage Study) Immunology Study**, the **Portland Kaiser Cohort Study**, and a large randomized vaccine trial are under way to address issues in cervical cancer screening, diagnosis, and prevention. Specific projects are aimed at identifying biomarkers associated with cervical cancer progression, determining the role of HPV in cervical neoplasia, and evaluating the efficacy of an HPV vaccine. http://dceg.cancer.gov/cervical-hpv.html
- Eight **Centers for Population Health and Health Disparities** are supporting research to understand and reduce differences in health outcomes, access, and care. Research includes studies focused on increasing early detection of cervical cancer in Appalachian women. http://cancercontrol.cancer.gov/populationhealthcenters/
- The intramural **Gynecologic Malignancies Faculty** is a group of NCI scientists who work together to develop better methods for the advancement of cervical cancer research in the areas of molecular etiology, epidemiology, prevention, cell biology, and treatment. http://ccr.cancer.gov/faculties/faculty.asp?facid=132
- The **Gynecologic Cancer Intergroup (GCIG)**, an organization of international cooperative groups for clinical trials in gynecologic cancers, is identifying active treatments for cervical cancer. http://ctep.cancer.gov/resources/gcig/index.html
- **Rapid Access to Prevention Development (RAPID)** provides funding and resources to develop agents that prevent, reverse, or delay cancer development. RAPID is designed to quickly move novel preventive molecules, such as HPV vaccines for cervical cancer, from the laboratory into clinical studies. http://www3.cancer.gov/prevention/rapid/
- The **Cervical Cancer Home Page** directs visitors to up-to-date information on cervical cancer treatment, prevention, genetics, causes, screening, testing, and other topics. http://www.cancer.gov/cervical

NCI Cervical Cancer Research Portfolio



Percentage of Total Dollars by Scientific Area
Fiscal Year 2004

* Data on training grants are not included in this figure. A description of the relevant research projects can be found at the NCI Cancer Research Portfolio website at http://researchportfolio.cancer.gov.

Selected Opportunities for Advancement of Cervical Cancer Research

- Develop molecular classifications of cervical cancer subtypes to aid disease prognosis and help in the design of individualized treatment strategies.
- Conduct population-based studies of quality of care and short- and long-term outcome, with a special emphasis on health disparities.
- Characterize the molecular and cellular pathways in cervical cancer cells and their microenvironment, with emphasis on the effects of hormonal and immune systems on cancer development. Use this knowledge to develop molecular strategies for prevention, early detection, prognosis, and treatment.
- Continue research on vaccines for both the prevention and treatment of cervical cancer.